

# Select Energy Services, Inc.

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*Everything Within Our Power, Guaranteed.*

## The Portsmouth Naval Shipyard: Bringing a Historic Power Plant Into the 21<sup>st</sup> Century

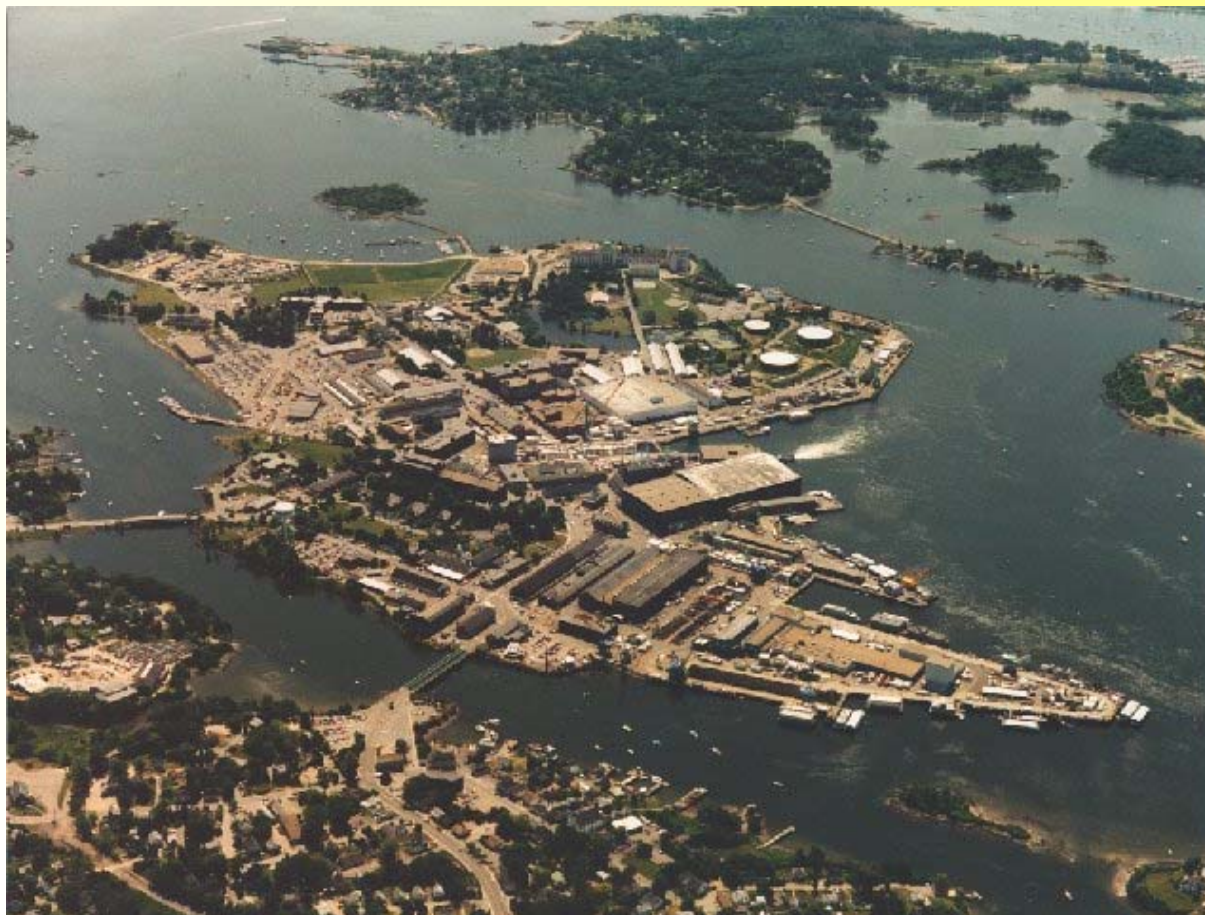
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# *Is CHP Right for You?*

- Why CHP?
  - Mission requirements
  - Power Reliability / Security
  - Utility Pricing
- Have I got the money?
  - Agency Funding
  - Utility Partnerships – DSM
  - Energy Savings Performance Contracting

# *Portsmouth Naval Shipyard - A Good Candidate for CHP?*



# *Evaluating the Facility – Portsmouth NS*

- Mission: Refuel & Overhaul Nuclear Submarines
- Island, Great historical significance
- 297 Acres, 316 Buildings, 297 Housing Units
- Distribution Piping: 7 miles steam, 4 miles condensate, 6 miles hot water return and supply
- Controlled Industrial Area (CIA)
- Drydocks, Nuclear Facilities, Cranes
- Boiler / Central Power Plant
- Utilities Budget (pre-ESPC): \$12 Million

# *Getting Involved with ESPC*

<b>Pre-Dec 97</b>	<b>PNS performs efficiency upgrades using DSM</b>
<b>Dec 97</b>	<b>Navy SmartBase program introduces PNS to ESPC</b>
<b>Jun 98</b>	<b>ACOE &amp; PNS Selection of ESCO</b>
<b>Oct 98</b>	<b>ACOE &amp; PNS Sign MOA</b>
<b>Dec 98</b>	<b>ESPC Kick Off Meeting</b>
<b>Mar 99</b>	<b>Site Survey Report Presentation / Meeting</b>
<b>May 9</b>	<b>Pre-Proposal Audit Presentation Meeting</b>
<b>Jun 99</b>	<b>Final Proposal Presentation</b>
<b>Aug 99</b>	<b>Task Order Award</b>

# ***Project #1 Snapshot***

- **\$10.9 Million Investment**
- **\$2.1 Million Annual Energy Savings**
  - **Power Plant Upgrade**
  - **Steam Trap Maintenance Program**
  - **Hot Water / Steam Distribution System Upgrade**
- **10-Year Finance Term**
- **Sep 99 – 00 Construction in Progress**
- **Dec 00 – Installation Complete / Government Acceptance**

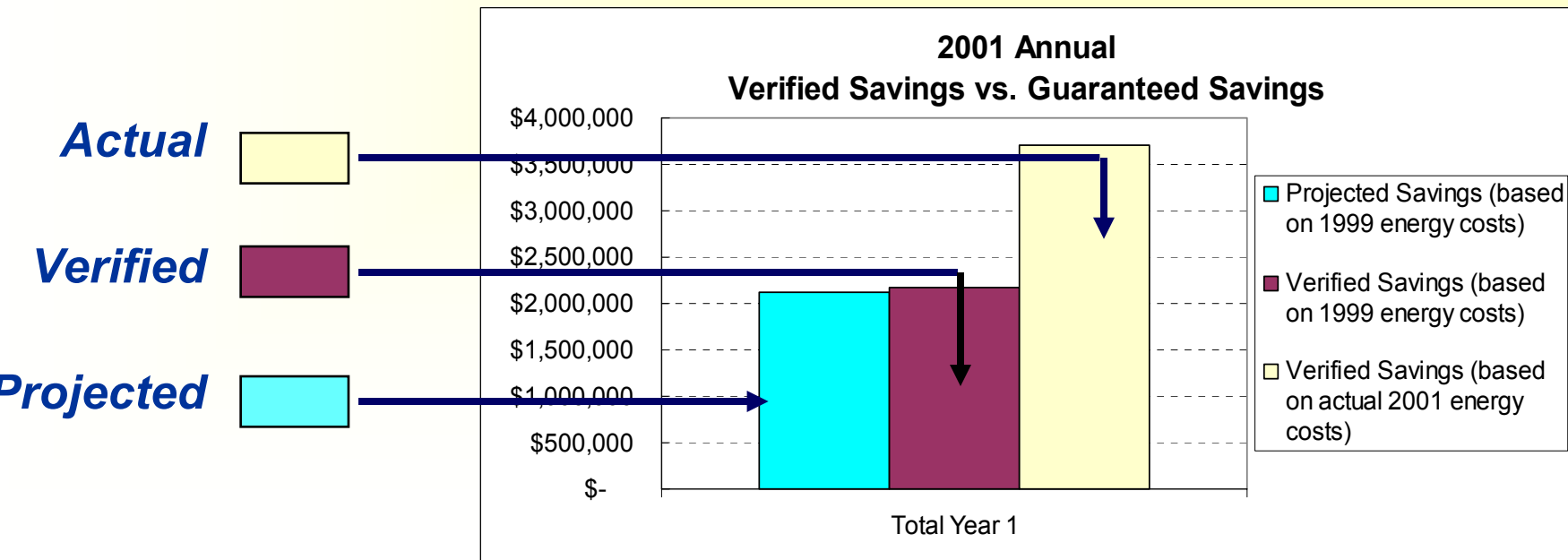


# Portsmouth Naval Shipyard Gas Turbine Ribbon Cutting (22 Feb 2001)



# Project #1 Energy Savings - 2001

Total Year 1	Power Plant Upgrade	Steam / HW System Improvements	Total Savings
<b>Projected Energy Savings (Based on 1999 energy costs)</b>			
	\$1,789,842	\$330,737	\$2,120,579
<b>Verified Energy Savings (Based on 1999 energy costs)</b>			
	\$1,836,667	\$329,121	\$2,165,788
<b>Verified Energy Savings (Based on 2001 energy costs)</b>			
	\$2,821,571	\$889,363	\$3,710,934





# ***Project #2 Snapshot***

- **\$31.7 Million Investment**
- **\$3.5 Million Annual Energy Savings**
  - **Boiler / Power Plant Upgrade, additional Cogeneration**
  - **Shut Down Central Hot Water System**
  - **Compressed Air System Distribution System Improvements**
  - **Shipyard-wide Lighting Upgrades**
- **18-Year Finance Term – modification of first project term**
- **Apr 04 – Installation Complete / Government Acceptance**

# *Ensuring Project Success*

- Commitment to a Partnership has guided PNS and SESI through challenging issues
  - Utility Protest
  - Unexpected Shipyard-wide Power Failure
  - Rail strike and uncooperative State Highway Commissions
  - Construction delays due to Shipyard mission
  - Electricity deregulation and its affect on future savings streams
- ❖ Keeping an open mind to the changing needs of the facility has enabled PNS to implement a flexible plant that will serve them into the future